

**Dr. L. R. Coney, Lectureship in Experimental Particle Physics, DCL0365-1**

*Curriculum Vitae*  
**Dr. Linda R. Coney**

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**Education:**

2000: **Ph.D., Physics, University of Notre Dame**

Thesis: "Diffractive  $W$  and  $Z$  Boson Production in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1800$  GeV."

1997: **M.A., Physics, University of Notre Dame**

1993: **B.S., Physics and Mathematics (Magna Cum Laude), Hope College**

**Academic Positions:**

July 2008-Current: Assistant Project Scientist, University of California, Riverside  
Department of Physics and Astronomy, University of California-Riverside, Riverside, CA 92521  
2007-August 2007: Visiting Assistant Professor of Physics, Hope College  
2005-2006: Fermilab Guest Scientist with Columbia University  
2001-2005: Postdoctoral Research Associate, Columbia University  
2000: Postdoctoral Research Associate, University of Notre Dame  
1993-2000: Graduate Student, University of Notre Dame  
1995-2000: Research Assistant  
1994-1995: Teaching Assistant  
1993-1994: Arthur J. Schmitt Presidential Fellow  
1991-1993: Teaching Assistant, Hope College  
1990-1993: Research Assistant, Atomic Physics Group, Hope College

**Awards:**

Arthur J. Schmitt Presidential Fellowship, University of Notre Dame, 1993-1994  
Douwe B. Yntema Prize in Physics, Hope College, 1993  
Senior Sigma Xi Award for Physics, Hope College, 1993  
Phi Beta Kappa Honor Society, Hope College, 1993

**Professional Committees:**

2004-2005: APS Neutrino Study Booklet Committee  
2002-2003: Organizing Committee, NuFact03 Workshop  
2001: Young Physicist Forum Committee member, Snowmass 2001  
2001-present: Young Particle Physicists (YPP) member - subscribed  
1997-1999: Fermilab Users' Executive Committee member - elected  
Chair of Quality of Life Subcommittee  
Chair of Younger Physicists Issues Subcommittee  
Outreach and Education Subcommittee member  
Annual Users' Meeting Subcommittee member

**Member of Professional Organizations:**

1993-current: American Physical Society (APS) - subscribed  
1995-current: APS Division of Particles and Fields - subscribed  
2000-current: APS Division of Particle Beams - subscribed  
2007-current: APS Forum on Education - subscribed  
2008-current: APS Forum on International Physics - subscribed  
2008-current: APS Forum on Physics and Society - subscribed

**Research Experience:**

- Muon Ionization Cooling Experiment (MICE), member 2008-present: MICE is an accelerator physics experiment at Rutherford Appleton Laboratory using particle physics detector technology and analysis techniques to measure emittance reduction in a muon beam. A muon beam is generated by dipping a target into the ISIS proton synchrotron, and an ionization cooling channel follows which will measure a 10% reduction in transverse emittance with high precision. Success in MICE represents a crucial R&D step along the path toward building a future neutrino factory.
  - Currently commissioning MICE readout electronics for one of two scintillating fiber tracking detectors.
  - Currently responsible for enabling remote operation of tracker readout power supplies including integration into MICE controls and monitoring system.
  - Leading online reconstruction effort to ensure quality of data and ability to reach physics goal of MICE.
  - Led installation and commissioning efforts for the full experiment as MICE Operations Manager from 10-23 October 2008.
  - As MICE Operations Manager, was responsible for daily operations of MICE including beamline components, target, and particle identification detectors.
  - Instituted policy of exercising all required elements of the experiment several days before scheduled data-taking in order to discover problems and enable subsequent resolution before running.
  - Served as liaison between MICE and ISIS accelerator personnel. Worked with members of ISIS accelerator group and RAL MICE collaborators to understand the requirements of symbiotic running of MICE during regular ISIS operations.

- Developed run plans for data-taking designed to study beam loss in ISIS accelerator and particle rate in the MICE beamline as a function of target dip depth.
  - Led MICE data taking to study effects on ISIS accelerator physics when dipping MICE target into the proton synchrotron beam.
  - Took data with electron, pion, and proton beams during ISIS machine study periods for use in beam loss study and detector commissioning.
  - Trained graduate students from Imperial College, London and Osaka University to be shift personnel during MICE data-taking and involved them in beam loss studies.
  - Improved commissioning documentation by writing operations manual for the HV power supply used by several particle identification detectors.
  - Wrote MICE Operations Manager transition manual to standardize requirements for incoming OM, to improve communication between managers, and to provide better continuity of commissioning knowledge.
- MiniBooNE Experiment (E898), member 2001-present: MiniBooNE is a neutrino experiment at Fermilab designed to look for oscillations from muon neutrinos to electron neutrinos. The Fermilab Booster provides an intense beam of 8.9 GeV/c protons onto a target producing pions which decay and result in a beam of muon neutrinos. These neutrinos are directed toward the MiniBooNE detector where a search for electron neutrinos is performed.
    - Participated in HARP experiment to measure pion production on MiniBooNE target and reduce systematic uncertainties on MiniBooNE neutrino flux.
    - Led Columbia University HARP group and guided research of graduate students.
    - Supervised data taking at HARP for MiniBooNE.
    - Directed research of REU (Research Experience for Undergraduates) student searching for supernova neutrinos using the MiniBooNE detector.
    - Tested and developed diagnostic system to monitor accelerator devices in Booster and identify instabilities.
    - Integrated new diagnostic system into permanent data logger to allow long term machine performance studies.
    - Participated in project to use ramped dipole correctors in Booster to control beam motion. Used new correctors to reduce beam losses near sensitive equipment.
    - Explored resonant extraction of beam halo as method to reduce uncontrolled beam loss.
    - Measured beam parameters of 8.9 GeV/c proton accelerator including tune shift, beam position, and beam loss through resonances.
    - Performed muon cooling beam simulations to test neutrino factory designs.
    - Authored and edited technical documents using Latex, MS Powerpoint, MS Word, and Adobe Illustrator.
    - Experienced in UNIX, LINUX, Microsoft Windows NT, VMS, Fortran, C++, JAVA, HTML, GEANT4, ICOOL, emacs, vi, CVS, LSF, and data analysis languages (ROOT, PAW).

- HARP (Hadron Production Experiment at CERN - PS214) member 2001-present: HARP is a fixed target experiment at the CERN PS. This large acceptance spectrometer is used to systematically study hadron production for protons incident upon a large range of target nuclei. Specifically,  $\pi^+$  and  $\pi^-$  production cross sections are measured directly from the MiniBooNE target to reduce systematic uncertainties on the MiniBooNE neutrino flux.
  - Enabled measurement of cross section backgrounds by identifying need for empty target data for each HARP target.
  - Ensured high data quality by calculating appropriate beam settings and monitoring spectrometer detectors.
  - Led HARP Production Group which provided data and Monte Carlo samples to entire collaboration for calibration and analysis purposes.
  - Recognized need for well-defined, stepwise method for modification of HARP reconstruction and analysis software. Implemented systematic procedure to make well understood changes to HARP software.
  - Coordinated data management on three continents while maintaining data quality and consistency of production methods.
  - Developed system to enable remote-site HARP analysis at Fermilab, Los Alamos National Lab, and universities in Europe and Japan.
  - Measured  $\pi^+$  production cross section in p-Al collisions at 12.9 GeV/c which were used to reduce systematic error in K2K neutrino flux.
  - Measured  $\pi^+$  production cross section in p-Be collisions at 8.9 GeV/c which were incorporated into the MiniBooNE neutrino oscillation analysis in order to reduce systematic error in MiniBooNE neutrino flux.
  - Created accurate material geometries for HARP GEANT4 simulation code.
  - Analyzed, tuned, and validated simulations of HARP threshold Cerenkov detector.
  - Developed particle momentum estimator to increase number of available tracks in cross section calculation.
- DØ Experiment, member 1995-2004: DØ is a collider experiment at the Fermilab Tevatron where studies are done on phenomena resulting from  $p\bar{p}$  collisions at a center of mass energy of nearly 2 TeV. The detector is geared primarily toward the investigation of large  $p_T$  phenomena. Top quark analyses, precision measurements of W and Z bosons, perturbative QCD testing, and new hard diffraction studies are all done at DØ .
  - Identified first diffractive Z boson production in  $p\bar{p}$  collisions. Measured diffractive component of W and Z boson production in  $p\bar{p}$  collisions.
  - Developed extensive Monte Carlo (PYTHIA, POMPYT26) studies to investigate validity of pomeron exchange as driving mechanism for diffractive W and Z production.
  - Calculated diffractive dijet production rates predicted by pomeron models using PYTHIA and POMPYT26 for the hard single diffraction analysis.
  - Performed detailed studies regarding electromagnetic energy scale variation between Monte Carlo (ISAJET) and data for DØ calorimeter energy scale determination.

- Discovered miscalculation of reconstructed photon energies which degraded calibration of jet response.
- Implemented photon energy scale correction which dramatically improved DØ jet response calculation.
- Directed Central Fiber Tracker(CFT) fiber lightguide quality control project for the DØ RunII upgrade.
- Trained and supervised shift personnel including graduate students, faculty members, high school teachers, and Fermilab technicians.
- Developed testing procedure using X-ray source and scintillating fiber ribbons to measure production quality of lightguides fabricated for CFT. Analyzed data to determine pass/fail status of each detector component.
- Performed light attenuation and radiation damage studies on scintillating fibers.

### **Teaching Experience:**

- Taught calculus-based General Physics class.
- Instructed undergraduates in General Physics laboratory classes.
- Taught general physics Discussion Section to provide students with additional preparation for tests.
- Led homework and test preparation help sessions for undergraduate physics students.
- Wrote exam problems for General Physics.
- Graded exams, laboratory notebooks, and laboratory reports for General Physics and associated laboratory classes.
- Taught undergraduate students how to write scientific documents and give research presentations to peers.
- Supervised REU undergraduate students working on accelerator and neutrino physics for MiniBooNE.
- Trained undergraduate student to work in UNIX environment, use ROOT, and run MiniBooNE analysis framework while performing search for supernova neutrinos.
- Mentored physics majors as faculty advisor for Hope College SPS.
- Taught scientific method and research documentation techniques to high school teachers in the Quarknet and Fermilab TRAC (Teacher Research Associates) program.
- Lectured at engineering physics review sessions.
- Tutored individual pre-med and engineering general physics students.
- Instructed introductory level physics labs for pre-med and engineering students.

**Communications and Administration:**

- Co-Directed Hope College Research Experience for Undergraduates program for 2007.
- Served as faculty advisor for Society of Physics Students at Hope College.
- Worked with Hope College Admissions Office to recruit minority students.
- Served as Physics Department representative to visiting perspective students interested in engineering and physics.
- Participated in writing of grant proposals for both Columbia University neutrino physics group and for an independent particle physics educational outreach program.
- Organized and hosted NuFact03 conference at Columbia University.
- Worked as scientific secretary for ALCPG07 workshop at Fermilab.
- Served as elected member of Fermilab Users' Executive Committee (UEC).
- Addressed members of Congress, Presidential Budget Office representatives, and Department of Energy personnel to promote high energy physics research done at Fermilab.
- Planned and ran 1998-1999 annual Fermilab Users' Meeting.
- Instituted and organized accelerator overview lecture series at Fermilab.
- Conceptualized and organized accelerator physics summer school at Fermilab.
- Implemented summer school accelerator shifts in Fermilab Main Control Room to provide students with practical experience in accelerator operations.
- Arranged career planning workshop for Fermilab graduate students and post-docs.

**Conference and Workshop participation:**

- 2009: Neutrino Factory Muon Collider Collaboration-Muon Collider Task Force Meeting, January 2009
- 2008: UK Neutrino Factory Meeting, September 2008
- 2008: Beach2008 - The 8th International Conference on Hyperons, Charm, and Beauty Hadrons
- 2007: ALCPG07: American Linear Collider Physics Group, ILC Global Design Group Joint Workshop
- 2007: Pheno2007 Symposium: Prelude to the LHC
- 2007: American Physical Society April Meeting: APS 2007
- 2005: Workshop on the Future of Nuclear Physics at LANSCE, Los Alamos

- 2004: Meeting of the Division of Particles and Fields: DPF 2004
- 2004: Neutrino 2004
- 2003: Neutrino Factory Workshop 2003: NuFACT03
- 2003: Particle Accelerator Conference (PAC)
- 2002: Neutrino Factory Workshop 2002 : NuFACT02
- 2002: US Particle Accelerator School (USPAS) (2002, 2001)
- 2001: Particle Accelerator Conference (PAC)
- 2001: Snowmass 2001: E1, M1, T3 Working group member

### Conference Presentations and Seminars:

- Beach2008 - The 8th International Conference on Hyperons, Charm, and Beauty Hadrons, Columbia, SC, June 2008: *Hadron Production Results from the HARP Experiment*
- Pheno2007 Symposium: Prelude to the LHC, Madison, WI, May 2007: *MiniBooNE and Pion Production Measurements at HARP*
- Hope College, Physics and Engineering Seminar, March 2007: *Neutrino Physics with MiniBooNE and HARP: How to Do Experiments with Invisible Particles!*
- Los Alamos National Laboratory, P-25 Seminar, June 2006: *Recent Results from the HARP Experiment*
- Meeting of the Division of Particles and Fields (DPF2004), Riverside, CA, August 2004: *HARP for MiniBooNE*
- Rutherford Appleton Laboratory, Particle Physics Seminar, Didcot, England, June 2004: *Status Report on the MiniBooNE Experiment*
- Fermi National Accelerator Laboratory, Summer Student Seminar, July 2003: *The HARP Experiment and MiniBooNE*
- Particle Accelerator Conference (PAC2003), Portland, OR, May 2003: *Fermilab Booster Orbit Correction*
- National Science Foundation, Accelerator Physics at Universities, Washington D.C., April 2003: *Columbia University Accelerator Physics*
- 4th International Workshop on Neutrino Factories based on Muon Storage Rings (NuFACT02), Imperial College, London, England, July 2002: *MiniBooNE Beam Systematics*
- Los Alamos National Laboratory, P-25 Seminar, April 2002: *Diffractionally Produced W and Z Bosons*
- Columbia University, Physics Graduate Student Seminar, New York, NY, March 2002: *Neutrino Factory: International Muon Ionization Cooling Experiment*

- APS/DPF/DPB Summer Study on the Future of Particle Physics (Snowmass 2001), Snowmass, CO, July 2001: *Young Particle Physicists (YPP) Outreach: Plans and Conclusions*
- New Perspectives Conference, Fermi National Accelerator Laboratory, July 1999: *Diffractional W Boson Production at DØ*
- XIth Rencontres de Blois - Frontiers of Matter, Chateau de Blois, France, June 1999: *Hard Diffraction at the Tevatron*
- APS Centennial Meeting, Atlanta, Georgia, March 1999: *Diffractional W Production at DØ*
- APS/AAPT Joint Meeting, Columbus, OH, April 1998: *Hard Diffraction at DØ*
- DØ Collaboration Workshop, Boston, MA, June 1996: *Photon Correction to MPF (Missing Et Projection Fraction) Jet Response*
- APS/AAPT Joint Meeting, Indianapolis, IN, May 1996: *The Hadronic Energy Scale of DØ Calorimetry*

### Outreach Activities:

- 2008: Served as scientific advisor to middle school students participating in Michigan Science Olympiad.
- 2007: Toured Fermilab with physics and engineering majors in Hope College SPS.
- 2007: Participated in faculty calling night to encourage minority students interested in physics and engineering to attend Hope College.
- 2005: Hosted second annual Fermilab Girl Scout Workshop. Led “Ask a Scientist” and explained lab scientific activities to over 100 grade school and high school scouts.
- 2005: Served as scientific advisor to “Science and Religion” class held at First Reformed Church of Holland, MI.
- 2005: Judged middle school science fair at Neuqua Valley High School in Naperville, IL.
- 2004: Participated in first Fermilab Girl Scout Workshop.
- 2004: Lectured Hope College physics and engineering majors visiting Fermilab on particle physics and accelerators at Fermilab.
- 2003: Led Girls Scientific Salon at Fermilab involving junior high school girls in hands-on physics experiments.
- 2002: Tutored for Partners in Education (PIE) program for children living in economically disadvantaged neighborhoods in Chicago through Fourth Presbyterian Church.
- 2002: Created and performed interactive demonstration program on Light and Color designed for grade school students.
- 2001-2002: Developed National Science Foundation proposal with Young Particle Physicists (YPP) to create and distribute particle physics instructional kits for primary school students.



- 2000: Mentored high school teachers in QuarkNet and Teacher Research Associates (TRAC) programs at Fermilab working on DØ experiment.

### Publications with Significant Input:

- “Measurement of the production cross-section of positive pions in the collision of 8.9 GeV/c protons on beryllium”, M. G. Catanesi *et al.*(HARP Collaboration), hep-ph/0110027 (2007).
- “Measurement of the production cross-section of positive pions in p - Al collisions at 12.9 GeV/c”, M. G. Catanesi *et al.*(HARP Collaboration), Nuclear Physics B **732**, (2006).
- “Particle identification algorithms for the HARP forward spectrometer”, M. G. Catanesi *et al.*(HARP Collaboration), Nucl. Instrum. Meth. A572:899-921, (2007).
- “Fermilab Booster Orbit Correction.”, (L. Coney, J. Monroe, W. Pellico, and E. Prebys), in *Proceedings of the 2003 Particle Accelerator Conference* ed. J. Chew, P. Lucas, and S. Webber (2003).
- “Observation of diffractively produced W and Z bosons in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV”, V. M. Abazov *et al.*, Phys. Lett. B **574**, 169 (2003); hep-ex/0308032, FERMILAB-PUB-03-233-E.
- “Hard Single Diffraction in  $p\bar{p}$  Collisions at  $\sqrt{s} = 630$  and 1800 GeV”, B. Abbott *et al.*, Phys. Lett. B **531**, 52 (2002); FERMILAB-Pub-99/373-E; hep-ex/9912061.
- “Young Physicists’ Forum.”, (T. Adams *et al.*), in *Proceedings of the APS/DPF/DPB Summer Study on the Future of Particle Physics (Snowmass 2001)* ed. R. Davidson and C. Quigg, eprint Archive: hep-ph/0110027 (2001).
- “Determination of the Absolute Jet Energy Scale in the DØ Calorimeters”, B. Abbott *et al.*, Nucl. Instrum. Methods Phys. Res. A**424**, 352 (1999); FERMILAB-Pub-97/330-E; hep-ex/9805009.

### Publications with Important Contributions:

- “Large-angle production of charged pions by 3-12 GeV/c protons on carbon, copper and tin targets”, M. G. Catanesi *et al.*(HARP Collaboration), Eur.Phys.J. C(2007).
- “Large-angle production of charged pions by 3-12.9 GeV/c protons on beryllium, aluminium and lead targets”, M. G. Catanesi *et al.*(HARP Collaboration), Eur.Phys.J. C(2008) [arXiv:0709.3458].
- “Measurement of the production cross-sections of  $\pi^{+-}$  in p-C and  $\pi^{+-}$ -C interactions at 12 GeV/c”, M. G. Catanesi *et al.*(HARP Collaboration), Astropart. Phys. (2008),[arXiv:0802.0657].
- “Measurement of the production of charged pions by protons on a tantalum target”, M. G. Catanesi *et al.*(HARP Collaboration), arXiv:0706.1600 [hep-ex], June 2007 (Submitted to Eur.Phys.J.C.).

- “The Neutrino Flux Prediction at MiniBooNE”, A. A. Aguilar-Arevalo *et al.* (MiniBooNE Collaboration), arXiv:0806.1449 [hep-ex], Submitted to Phys. Rev. D.
- “Measurement of Muon Neutrino Quasi-Elastic Scattering on Carbon”, A. A. Aguilar-Arevalo *et al.* (MiniBooNE Collaboration), Phys. Rev. Lett. 100, 032301 (2008).
- “A Search for Electron Neutrino Appearance at the  $\Delta m^2 \sim 1 \text{ eV}^2$  Scale”, A. A. Aguilar-Arevalo *et al.* (MiniBooNE Collaboration), arXiv:0704.1500 [hep-ex], Phys. Rev. Lett. 98, 231801 (2007).
- “The HARP Detector at the CERN PS”, M. G. Catanesi *et al.* (HARP Collaboration), Nuclear Instrum. Meth. A, 571 (2006).
- “Probing hard color-singlet exchange in  $\bar{p}p$  collisions at  $\sqrt{s}=630 \text{ GeV}$  and  $1800 \text{ GeV}$ .”, B. Abbott *et al.*, Phys. Lett. B **440**, 189 (1998); FERMILAB-Pub-98/285-E; hep-ex/9809016.
- “Extraction of the width of the  $W$  boson from measurements of  $\sigma(p\bar{p} \rightarrow W + X) \times \text{Br}(W \rightarrow e\nu)$  and  $\sigma(p\bar{p} \rightarrow Z + X) \times \text{Br}(Z \rightarrow ee)$  and their ratio”, B. Abbott *et al.*, Phys. Rev. D **61**, 072001 (2000); FERMILAB-Pub-99/171-E; hep-ex/9906025.
- “The Inclusive Jet Cross Section in  $\bar{p}p$  Collisions at  $\sqrt{s} = 1.8 \text{ TeV}$ ”, B. Abbott *et al.*, Phys. Rev. Lett. **82**, 2451 (1999); FERMILAB-Pub-98/207-E; hep-ex/9807018.

### Other Publications:

- “The ratio of jet cross sections at  $\sqrt{s}=630$  and  $1800 \text{ GeV}$ ”, B. Abbott *et al.*, Phys. Rev. Lett. 86, 2523 (2001); FERMILAB-Pub-00/213-E, hep-ex/0008072.
- “Search for 3- and 4-Body Decays of the Scalar Top Quark in Proton- Antiproton Collisions at  $\sqrt{s} = 1.8 \text{ TeV}$ ”, V. M. Abazov *et al.*, Phys. Lett. B **581**, 144 (2004); FERMILAB-PUB-03-306-E.
- “Multiple jet production at low transverse energies in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8 \text{ TeV}$ ”, V. M. Abazov *et al.*, Phys. Rev. D **67**, 052001 (2003); FERMILAB-Pub-02/153-E, hep-ex/0207046.
- “Search for large extra dimensions in the monojet +  $\cancel{E}_T$  channel with the DØ detector”, V. M. Abazov *et al.*, Phys. Rev. Lett. **90**, 251802 (2003); hep-ex/030214.
- “ $t\bar{t}$  production cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8 \text{ TeV}$ ”, V. M. Abazov *et al.*, Phys. Rev. D **67**, 012004 (2003); hep-ex/0205019.
- “Subjet multiplicity of gluon and quark jets reconstructed with the  $k_\perp$  algorithm in  $p\bar{p}$  collisions”, V. M. Abazov *et al.*, Phys. Rev. D **65**, 052008 (2002); FERMILAB-Pub-01/248-E; hep-ex/010854.
- “The inclusive jet cross section in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8 \text{ TeV}$  using the  $k_\perp$  algorithm”, V. M. Abazov *et al.*, Phys. Lett. B **525**, 211 (2002); FERMILAB-Pub-01/290; hep-ex/019041.
- “Search for R-parity violating supersymmetry in two-muon and four-Jet Channel”, V. M. Abazov *et al.*, Phys. Rev. Lett. **89**, 171801 (2002), FERMILAB-Pub-01/352-E; hep-ex/0111053.

- “Search for Leptoquark Pairs Decaying to  $\nu\nu$ + jets in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett. **88**, 191801 (2002); FERMILAB-Pub-01/349-E; hep-ex/0111047.
- “A direct measurement of the  $W$  boson width”, V. M. Abazov *et al.*, Phys. Rev. D **66**, 032008 (2002); FERMILAB-Pub-02/063-E, hep-ex/0204009.
- “Improved  $W$  boson mass measurement with the DØ detector”, V. M. Abazov *et al.*, Phys. Rev. D **66**, 012001 (2002); FERMILAB-Pub-02/055-E, hep-ex/0204014.
- “Search for minimal supergravity in single electron events with jets and large missing transverse energy in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8$  TeV, V. M. Abazov *et al.*, Phys. Rev. D **66**, 112001 (2002); FERMILAB-Pub-02/074-E, hep-ex/0205002.
- “Search for production of single sleptons through R-Parity violation in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8$  TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett. **89**, 261801 (2002); hep-ex/0207100.
- “A search for the scalar top quark in  $p\bar{p}$  collisions at  $\sqrt{s} = 1.8$  TeV”, V. M. Abazov *et al.*, Phys. Rev. Lett. **88**, 171802 (2002); FERMILAB-Pub-01/233-E, hep-ex/0108018.
- “Direct Search for Charged Higgs Bosons in Decays of Top Quarks”, V. M. Abazov *et al.*, Phys. Rev. Lett. **88**, 151803 (2002); FERMILAB-Pub-01/022-E; hep-ex/0102039.
- “Search for Large Extra Dimensions in Dielectron and Diphoton Production”, B. Abbott *et al.*, Phys. Rev. Lett. **86**, 1156 (2001); FERMILAB-Pub-00/210-E, hep-ex/0008065.
- “Ratios of Multijet Cross Sections in  $p\bar{p}$  Collisions at  $\sqrt{s}=1800$  GeV”, B. Abbott *et al.*, Phys. Rev. Lett. **86**, 1955 (2001); FERMILAB-Pub-00/218-E, hep-ex/0009012.
- “Measurement of the Angular Distribution of Electrons from  $W \rightarrow e\nu$  Decays Observed in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV”, B. Abbott *et al.*, Phys. Rev. D **63**, 072001 (2001); FERMILAB-Pub-00/228-E, hep-ex/0009034.
- “Differential Cross Section for  $W$  Boson Production as a function of Transverse Momentum in  $p\bar{p}$  Collisions at  $\sqrt{s} = 1.8$  TeV”, B. Abbott *et al.*, Phys. Lett. B **513**, 292, (2001). FERMILAB-Pub-00/268-E, hep-ex/0010026.
- “Inclusive jet production in  $p\bar{p}$  collisions”, B. Abbott *et al.*, Phys. Rev. Lett. **86**, 1707 (2001); FERMILAB-Pub-00/271-E, hep-ex/0011036.
- “A Quasi-Model-Independent Search for New High  $p_T$  Physics at DZero”, B. Abbott *et al.*, Phys. Rev. Lett. **86**, 3712 (2001); FERMILAB-Pub-00/304-E; hep-ex/0011071.
- “A Quasi-Model Independent Search for New Physics at Large Transverse Momentum”, V. M. Abazov *et al.*, Phys. Rev. D **64**, 012004 (2001); FERMILAB-Pub-00/302-E, hep-ex/0011067.
- “High- $p_T$  Jets in  $p\bar{p}$  Collisions at  $\sqrt{s} = 630$  and 1800 GeV”, B. Abbott *et al.*, Phys. Rev. D **64**, 032003 (2001); FERMILAB-Pub-00/216-E, hep-ex/0012046.
- “Search for Heavy Particles Decaying into Electron-Positron Pairs in  $p\bar{p}$  Collisions”, V. M. Abazov *et al.*, Phys. Rev. Lett. **87**, 061802 (2001); FERMILAB-Pub-01/024-E; hep-ex/0102048.

- “Search for First-Generation Scalar and Vector Leptoquarks”, V. M. Abazov *et al.*, Phys. Rev. D **64**, 092004 (2001); FERMILAB-Pub-01/057-E; hep-ex/0105072.
- “Search for New Physics Using QUAERO: A General Interface to DZero Data”, V. M. Abazov *et al.*, Phys. Rev. Lett. **87**, 012004 (2001); FERMILAB-Pub-01/105-E; hep-ex/0106039.
- “Search for Single Top Production at DZero Using Neural Networks”, V. M. Abazov *et al.*, Phys. Lett. B **517**, 282 (2001); FERMILAB-Pub-01/102-E; hep-ex/0106059.
- “Measurement of the ratio of differential cross sections for  $W$  and  $Z$  boson production as a function of transverse momentum”, V. M. Abazov *et al.*, Phys. Lett. B. **517**, 299 (2001); FERMILAB-Pub-01/212-E, hep-ex/0107102.
- “The ratio of isolated photon cross sections in  $p\bar{p}$  collisions at  $\sqrt{s} = 630$  and  $1800$  GeV”, V. M. Abazov *et al.*, Phys. Rev. Lett. **87**, 251805 (2001); FERMILAB-Pub-01/239-E, hep-ex/0106026.
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